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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/082,065 | 02/26/2002 | Boris Iv. Basok | PUL01 | 2684 |

7590 05/06/2004
Daniel M Kennedy
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EXAMINER

MADSEN, ROBERT A

ART UNIT PAPER NUMBER

1761

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/082,065

Applicant(s)

BASOK ET AL

Examiner

Robert Madsen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 5-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/62, 8/62, 9/62, 11/02
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date April 6, 2004
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of the species "short pulse" in claims 1-4, 12 in the Response filed April 16, 2004 is acknowledged. The traversal is on the ground(s) that in order to search the generic matter claimed, one would have to search all of the species. This is not found persuasive because as recited energy since the forms of energies recited in the various species would require different methods of homogenizing. For example, creating energy formed by a pressure drop versus an electromagnetic wave, would require different methods. Furthermore, applicant has even disclosed the various recited methods utilize *different* thermophysical effects. Additionally, for example, Hidalgo (EP 535781 A1) teaches homogenizing with energy, generated by utilizing a burst of flow or a pressure drop, with different methods (Column 2, line 20 to Column 3, line 17).
2. The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
4. Claims 2 and 12 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to

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which it pertains, or with which it is most nearly connected, to make and/or use the invention. The term "short pulse" is not defined in the specification. It is unclear if it is an actual energy pulse per se that is applied to the mixture (i.e. via a electric current or electric field) or an oscillating form of agitation (e.g. via pulsing of pressure, flow rate, shear, etc.). It is also unclear whether "short" refers to a frequency a pulse is applied or the total time the solution is exposed to the energy created by the short pulse (i.e. one "momentary" application). Since applicant discloses discrete pulse energy includes applying an oscillating frequency, for examination purposes, "short pulse" is considered to be energy applied via an oscillating frequency.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. The term "short pulse energy" in claims 2 and 12 is a relative term which renders the claim indefinite. The term "short" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term "short pulse" is not defined in the specification. It is unclear whether "short" refers to a frequency a pulse is applied or the total time the solution is exposed to the energy created by the short pulse to achieve homogenization (i.e. one "instantaneous" pulse of

energy). Furthermore, applicant has not disclosed the baseline of comparison. Applicant's pulse energy is "short", but applicant has not disclosed what is considered "long". Since applicant disclose discrete pulse energy includes applying an oscillating frequency, for examination purposes, "short pulse energy" is considered to be energy that is applied via an oscillating frequency.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-4 and 12 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Dolinskiy et al. (The Principles of Developing New Energy-And Resource Efficient Technologies Based on the Methods of Discrete-Pulsed Energy Input).

10. See Page 12, Column 2, Paragraph 2 ; Page 13, Column 1, Paragraph 3 to Column 2, line 2; Page 14, Column 2, Paragraphs 2 and 3;Page 5, Column 2, Paragraphs 3 and 4.

11. Claims 1-4 and 12 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hidalgo (EP 535781 A1).

12. See Abstract, Column 2, line20 to Column 3, line 17, Column 12, line 47-Column 13, line 23, and claim 1, Note "bursts" of flow result impart "bursts of energy".

13. Claims 1-4 and 12 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Gladushnyak et al. (SU 1688809A1).

14. See English Abstract.

15. Claims 1-4 and 12 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Colman et al. (US 5439991).

16. See Abstract, Column 1, lines 5-51.

Conclusion


17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Madsen whose telephone number is (571) 272-1402. The examiner can normally be reached on 7:00AM-3:30PM M-F.

18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert Madsen
Examiner
Art Unit 1761



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